



ENERGY-ONIX

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PRESS RELEASE

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Bernie Wise, President of Energy-Onix reports that Energy-Onix ships approximately 250 broadcast transmitters per year. This number includes 205 FM and 50 AM transmitters.

Bernie noted that none of these customers had an interest in HD Radio. The most common reasons given for no interest were as follows:

FM Stations

a – Price – The equipment price for an HD Radio transmitter and antenna system is prohibitively expensive!! The average HD Radio package is a minimum of \$100,000. and can be as high as \$250,000.

b – Limited Coverage – The system has been promoted to have an acceptable signal as far as the 55db contour. We have found that the signal is useable in practice to the 75db contour.

c- No consumer incentive – Fifty percent of the digital spectrum is a repetition of the FM analog stereo channel. In a reasonably matched system the FM analog is comparable quality to the digital when the digital is within its limited range. There is no incentive for the consumer to use “HD Radio”.

d – Adjacent Channel Interference. We have reports from our customers that HD Radio has caused major interference with existing FM stations that operate on the adjacent channel to an HD Radio station. It is well known that their FM “IBOC stations” operate from 130KHz to 200KHz from their analog center frequency.

e – Annual Licensing Fee – IBiquity has a monopoly on the HD Radio system. This system cannot be used without paying an annual licensing fee which can be determined by the management of IBiquity. It is difficult to understand that the FCC would establish a standard which is controlled by a proprietary source.

AM Stations

a – HD Radio has an audio frequency response of only 5000Hz. A normal analog AM transmitter has a 10,000Hz response.

b – An HD Radio exciter and additional broadband matching may cost the AM broadcaster an additional \$50,000.

c – HD Radio occupies the adjacent broadcast channels. Thus, in the evening, the high reflection of medium frequencies from the ionosphere cause severe interference to adjacent channels which essentially destroys their “night time” service.

d – HD Radio cannot modulate more than 95%. A conventional analog AM transmitter can modulate 125%. Thus, in many major markets where major stations may operate with HD Radio, they are the lowest sounding stations in the market. Medium and low power AM stations have much higher audio volumes since they modulate at 125%.

Final Comments:

Recently, the FCC advised those FM broadcasters who have already invested substantial sums in implementing IBOC, that some of them could increase the level of their digital subcarriers by as much as 10db (10:1). This expansion was based on new technical data submitted by iBiquity and the engineering department of NPR.

How can we believe the projected performance when this same group recommended a 100 to one ratio ten years ago and guaranteed acceptable performance!!

At present, the only stations that are operating with HD are the 1400 Clear Channel stations, the large group stations and the NPR stations. Very few small or medium-sized stations are utilizing IBOC.

The present economic situation will reduce the implementation of IBOC and there will be very few adjacent channels with HD operations. Thus, we may not be able to verify the acceptability of adjacent channel interference between two IBOC stations.

I do know that many sophisticated countries have evaluated HD radio and they have declined to utilize “HD Radio”. Our USA broadcasters are taking a substantial risk by investing in “HD Radio”. I strongly recommend that my broadcast friends take a “wait-and-see” attitude for several years before they invest in IBOC.